



**SEPTEMBER 7, 2004**

## **HOW LARGE IS THE U.S. SOYBEAN CROP?**

Last month, the USDA forecast the 2004 U.S. soybean crop at 2.877 billion bushels, 459 million larger than the 2003 crop and only 12 million less than the record crop of 2001. That forecast was based on a survey of farmers and on some field observations of crops in the seven largest producing states in late July/early August. The forecast assumed normal weather conditions for the remainder of the growing season.

The crop forecasting process has been repeated for the report to be released on September 10 and will be conducted again for the October and November forecasts. Monthly forecasts, relative to the final estimate made in January following harvest, generally become more accurate in later months of the forecasting cycle as more information is available. Anticipating the September forecast this year is made difficult by the diversity in reported crop conditions and by the wide range in crop maturity. The USDA's report of crop conditions for the week ended August 29 showed the poorest crops to be in Louisiana, Michigan, Minnesota, North Dakota, Ohio, and Wisconsin. Relative to the five year average, crop maturity was latest in Kansas, Michigan, Minnesota, the Dakotas, and Wisconsin. In general, however, August weather conditions were favorable for much of the crop in the Midwest and harvest of early maturing varieties is underway.

For much of the past month, the soybean market focused on the lateness of the crop in northern growing areas and the private forecasts of an early freeze that could damage much of that crop. November 2004 soybean futures moved \$.30 higher (closing at about \$5.85) following the smaller than expected August production forecast and then traded to a high of \$6.52 on September 1. The market focused on crop concerns in northern growing areas and appeared to ignore the potential impact of favorable weather on crops in the middle of the country. Now, forecasts of imminent frost have disappeared and the National Weather Service forecast for the period September 12 through 16 calls for above normal temperatures in most of the northern growing areas.

While harvest is well underway in some southern areas and will be progressing rapidly in the lower Midwest, considerable uncertainty about crop size will persist beyond the USDA's September forecast to be released this week. Current crop condition ratings,

however, suggest that there is potential for the U.S. average yield to exceed the USDA's August forecast of 39.1 bushels per acre. As of August 29, 64 percent of the U.S. crop was rated in good or excellent condition, well above the 45 percent of a year ago. Based on the relationship between crop condition ratings at the end of the season and the average yield over the past 18 years, current crop condition ratings suggest a 2004 average yield of 41.2 bushels per acre. It is likely that crop condition ratings will continue to decline. The percentage of the crop rated good or excellent, however, would need to decline to 53 percent for historical relationships to point to a yield of 39.1 bushels. While the past relationship between reported crop conditions at the end of the season and yield is fairly strong, the "fit" was weak in some years. Crop condition ratings do not provide a complete indication of yield prospects, but have been a reasonable guide.

An average yield of 41.2 bushels per acre, without a change in the estimate of harvested acreage, would result in a 2004 U.S. soybean crop of 3.035 billion bushels. If the percentage of the crop rated good or excellent declines another 5 points, a yield of 40.2 bushels and a crop of 2.96 billion bushels would be projected by past relationships. A crop of that size would likely be enough to push prices back to the early August lows, and probably even lower.

With the change in frost prospects, November 2004 soybean futures traded back to the \$5.80 level early on September 7. For the moment, prospects for an abundant harvest are still in place, but prices may continue to be a bit volatile as the growing season winds down and yield reports filter into the market. Once the U.S. growing season is completed, the market will turn more attention to Chinese demand and South American crop prospects. Forecasts of Chinese imports are fairly aggressive and most analysts continue to report prospects for a significant (7 percent) increase in soybean area in Brazil. Some concern about the South American crop may be needed to keep prices from moving lower this winter.

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